EFRS EUROPEAN FEDERATION OF RADIOGRAPHER SOCIETIES

Development of the radiographer role

EFRS guidance document

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Foreword

Increasingly radiographers in some countries in Europe, notably United Kingdom and The Netherlands, are taking on roles which were previously carried out by radiologists. This document which is based on the working documents of these Societies[1,2] support these changes . The European Federation of Radiographer Societies (EFRS) wish to illustrate to its member Societies the definitions of these radiographers' roles their individual responsibilities, and level of education required at each level.

Many reasons have been given for this development of the radiographer role and these include:

- workforce shortage, medical and non-medical
- increase in the volume of work
- work is becoming more and more complex
- long waiting lists for imaging and radiotherapy
- clinical departments needed some solutions
- development of graduate radiography educational programmes
- under use of graduate radiographers
- documented evidence of local examples of role development since 1980's.

The main reason for these changes is to improve the service we provide for patients while also improving the job satisfaction for radiographers.

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President EFRS

November 2011

[1]**Education and Professional Development Strategy: New Directions**
[2]**Visiedocument beroepenstructuur Medische Beeldvorming en Radiotherapie**

Context

This guidance gives specific information relevant to practitioner and advanced practitioner levels of practice.

Practitioner

The definition of a Practitioner is:
''Practitioner level is fundamental as it defines the level of entry to professional practice. The practitioner will have developed an understanding of a complex body of knowledge. Analytical techniques and problem solving skills enable the practitioner to operate in a variety of settings including active involvement in research. The practitioner needs to be able to exercise personal responsibility and make decisions in complex and unpredictable circumstances. The learning process must enable the practitioner to be able to evaluate evidence, argument and assumptions, to reach sound judgements and adapt practice as required, and to communicate effectively.''

Scope of Practice

All radiographers at the point of registration are competent to practise autonomously in their discipline at the initial level. Clinical skills obtained during the pre-registration period need to be consolidated to provide the foundations for continuing development of this group of staff. Therefore, the infrastructure to nurture and develop practitioner radiographers must be in place. This should ensure exposure to both the breadth and depth of clinical skills organised around service needs and should include a formal period of induction followed by preceptorship.
Registered radiographers at the practitioner level undertake a broad portfolio of diagnostic examinations/radiotherapy procedures in the delivery of care for both clinical imaging and radiotherapy patients. The practitioner is an integral member of the clinical imaging or radiotherapy and oncology team delivering high quality clinical care.
Thereafter, the individual is required to undertake CPD relevant to their practice in order to maintain and demonstrate continuing competence.

Education requirements

The minimum qualification in the accepted qualification as required by their National Society at Higher Educational level. This should be at a minimum level of EQF level 6. This should preferably be at degree level. Statutory legislation is also to be encouraged.

Accountability, autonomy and responsibility

It is expected that all practitioners will develop from this minimum level as their careers progress. The minimum standards are the building blocks upon which individuals develop supported by a preceptorship period, continuing professional development and clinical supervision.
As a registered practitioner, radiographers are autonomous and accountable for their practice. They must only undertake tasks for which they have been educated and trained, in accordance with agreed local policies and protocols and with the agreement of the employing organization.

Continuing Professional Development

From the point of initial registration the individual is required to engage in Continuing Professional Development (CPD) relevant to their professional practice. This activity should be recorded to support members in identifying their development needs, and evaluate their learning outcomes.

Support and resources

Following entry to service and initial induction, a period of preceptorship should be provided to ensure the smooth transition from student to confident clinical practitioner. A formal framework for the introduction of clinical supervision needs to be implemented within all clinical imaging and radiotherapy and oncology departments.
Following the preceptorship period, practitioners continue to be engaged in clinical supervision and continuing professional development to maintain and develop new competencies in preparation for career advancement linked to service needs and personal aspirations. Practitioners should be enabled to explore and experience diverse fields of clinical practice to assist them to make career choices.

The role of the radiographer at practitioner level

Practitioner level posts will be structured around identified service needs. Their core function is the delivery of high quality clinical practice within diagnostic imaging or radiotherapy.

Development of the Practitioner

When practitioners have progressed beyond preceptorship and consolidated their roles, they will be looking to advance their careers. This may be through a variety of routes, developing specialist skills and knowledge related to:

- care pathways, anatomical, physiological and pathological systems, imaging or treatment modalities and techniques
- teaching and learning
- research
- management.

Advanced Practitioner

The definition of an Advanced Practitioner is:
"An individual who has significantly developed their role and who consequently has additional clinical expertise in a defined area of practice, accompanied by deep underpinning, evidence based knowledge

related to that expertise. They make appropriate clinical decisions related to their enhanced level of practice, directly impacting on the patient care pathway."

The advanced practitioner category encompasses the considerable depth and breadth of radiographic practice. Predominantly, advanced practice relates to expert clinical practice in association with one or more other functions, for example, team leadership, education, research, and service development. Advanced practice also includes roles which are based mainly on service management, research or education.

At this level practitioners have developed expert knowledge and skills in relation to the delivery of care in diagnostic imaging or radiotherapy and oncology in a wide range of care settings or environments. For non-clinical fields of practice, the model is similar, supporting career development for radiography managers, researchers and academics. A key feature of an advanced practitioner role is that they are enabled to develop innovative practice and to identify where service and quality improvements can be achieved.

The advanced practitioner will be an integral member of the radiography team but will also interact with the relevant multidisciplinary teams to ensure delivery of high quality, effective care.

Advanced practitioners with research, management or academic roles will be expected to deliver efficient and effective services within their domains.

Education requirements

Practitioner educational is required to support this level of post registration practice are education and/or development through work place learning and practice to Masters level qualifications, or equivalents. This should be at a minimum level of EQF level 7.

Accountability, autonomy and responsibility

Advanced practice is part of a continuum and, as a result, the advanced practitioner's level of autonomy and responsibility will be determined by his or her individual competencies and the practice setting. The extension of skills must be underpinned by appropriate education and training and clinical practice must lie within locally agreed protocols and clinical governance frameworks. Advanced practitioners are accountable for their professional actions. As their careers develop at this level they will be reflective practitioners with highly developed judgment and decision-making skills. They will contribute significantly to the clinical management of individual patients and will liaise effectively with other professionals. They may provide supervision for assistants, students and other staff and will delegate tasks as appropriate. In delegating tasks to non-registered staff, they will retain responsibility for the episode of care. They will work closely with medical and non-medical consultants in their field and will also be engaged in personal clinical supervision or an alternative model depending upon their practice setting.

Support and resources

Advanced practitioners will be engaged in relevant continuing professional development. The nature of the advanced practice role demands that the individual is actively involved in career-long learning to support the continuing acquisition of the necessary depth of knowledge. Advanced practice roles will be influenced by local service provision and identified needs. To be able to contribute fully to evolving service developments, advanced practitioners need access to wider development opportunities and further education to ensure that they are well placed to deliver new and innovative patient focused services.

The role of the radiographer as an advanced practitioner

The advanced practitioner will demonstrate expert clinical practice to secure service delivery of the highest quality. The core function is to engage in expert clinical practice to deliver high quality patient- focused care in Diagnostic Imaging or Therapeutic Radiography, or the equivalent, in service management, research and education.

The Advanced Practitioner role may incorporate other supporting functions such as:

- team/professional leadership
- practice and service development
- education and training
- research and development.

The above supporting functions may be equally divided within the job specifications for advanced practitioner roles or, more likely, they will be weighted to support the particular scope of a specific advanced practice role.

Accreditation of Advanced Practitioners

A form of accreditation should be established accreditation of advanced practitioners to:

- ensure there is national consistency in the standards of practice
- secure transferability of those standards across the profession
- recognise explicitly the professional achievements of individuals
- provide clarity for professionals and service users on the nature of advanced practice in clinical imaging and radiotherapy and oncology
- promote the value of advanced practice skills and status
- support the development of emerging advanced practitioners in a systematic way and so facilitate succession planning within services
- support accredited advanced practitioners to remain demonstrably at the leading edge of their specialism
- build on existing frameworks for advanced practice

The processes of initial accreditation and re-accreditation relate to the four core functions of higher level practice (Table 1). These provide a framework within which continuing professional development can be evidenced to ensure it is appropriate to advanced practice roles.

Table 1: Core Functions of Higher Level Practice

- Expert Practice
- Professional Leadership and Consultancy
- Education, Training and Development
- Practice and Service Development, Research and Evaluation

A number of key principles include:

- service improvement / cost effective quality care
- leadership
- innovation.

All these require advanced practitioners to be involved in decision making at local level around models of care, effective use of skills and resources and the further development of roles to drive forward the quality of care and services provided. Guidance related to specific areas of practice is given below and, while a broad range of practice areas are considered, these are examples and not a definitive list. Indeed, advanced practitioners may be found in all areas of clinical imaging and radiotherapy and oncology.

Possible areas of advanced practice.

1. Radiotherapy and Oncology

The demand for expansion of radiotherapy services requires that the skill mix of the radiotherapy and oncology team is re-examined. The role of the radiographer in treatment planning, dosimetry and treatment is set to increase to meet the demand for intensity modulated radiotherapy (IMRT) and image guided radiotherapy (IGRT).

2. Image interpretation and reporting

Reporting by radiographers, initially established in ultrasound, has now become firmly embedded within the scope of practice of advanced practitioners. The proportion of unreported images has been reduced both by the introduction of technology such as PACS (Picture Archiving and Communication Systems) and, importantly, by radiographers undertaking the reporting of diagnostic examinations.

3. Ultrasound

Not only is the demand for ultrasound examinations increasing but the diversity of procedures carried out is developing. [not only by volume but also to meet the access and choice agenda.] Such services will require advanced practitioners to perform these examinations and to co-ordinate multi-disciplinary teams and manage services.

4. Interventional Procedures

The increasing use of interventional radiology is accompanied by more complex procedures being carried out. There can be opportunities for radiographers to perform a number of less complex procedures such as vascular angiography.

5. Radiation Protection

All clinical departments of diagnostic imaging, nuclear medicine and radiotherapy require someone to keep an overview of issues pertaining to radiation protection. This individual may be designated as a Radiation Protection Supervisor and must have sufficient authority to ensure that the provisions of the Ionising Radiation Regulations are upheld by all operators and practitioners. They may have a role in developing protocols around justification and referrals and as such, may be an advanced practitioner.

6. Education and Training; Research and Development

Some advanced practitioners will develop enhanced skills related to education and training and may have this function formally recognised within their job role. Such activity may include the teaching and assessing of learners such as student radiographers, radiographers and other practitioners developing extended roles and skills. Inevitably, as patterns of care change to a patient- focussed approach, the radiographer may well be involved in the teaching and supervision of other healthcare professionals. This multi-disciplinary involvement strengthens the core function of working across professional boundaries and provides a basis of evidence for career advancement.

In developing enhanced clinical skills and demonstrating evidence- based practice, new roles and practices may provide the opportunity for developing research skills and contributing to, or leading, clinical research. This may lead to formal recognition as a researcher either wholly within the healthcare service or as a joint appointment with an academic institution.

7. Health and Safety

All clinical departments of diagnostic imaging, nuclear medicine and radiotherapy require someone to keep an overview of issues pertaining to health and safety issues, relating to for example moving and handling, infection control and the avoidance of musculo-skeletal disorders. They may have a role in developing protocols around justification and referrals and as such, may be an advanced practitioner.

8. Information Management and Technology

The widespread introduction of Radiology Information and Management systems and PACS has provided development opportunities for radiographers with an interest in Information Management and Technology. Maintenance of these systems and their utilisation in clinical audit and research requires considerable experience and knowledge of information technology.

9. Forensic imaging

Proposals for non- invasive autopsy and the frequent use of imaging to provide forensic evidence require the radiographer to have a sound knowledge of the legal procedures and processes involved with clear radiographer leadership.

Many advanced practitioners will build on their leadership and management skills and become service managers and leaders. Developing the workforce of the future is an important career pathway for advanced practitioners to grow and sustain both the current and future workforce. A key role is that of practice development facilitator, supporting workforce development and aligning this to service needs and priorities, often on a multi-disciplinary basis. Advanced practitioners foster links with education providers in their clinical roles and may build on those to develop further the educational component of their roles, moving on into formal clinical-academic posts or lectureships.

Clinical and service innovation requires proper audit and evaluation, some of which needs to be multi-centre if new techniques and treatments are to have proven utility. Engagement in such activity is a natural development pathway for advanced practitioners aiming to build a career in research, enabling them to gain knowledge, skills and experience as members of relevant audit, evaluation and research teams and groups. This may progress to co-ordination roles for clinical trials locally or nationally, to research links with

academic partners, and to leading research proposals and bids for funding as well as the research itself for projects that are funded.

The way forward

Radiography is a core service with radiographers making significant contributions to the patient/client care pathway. The public and patients expect that radiographers will be adequately prepared to deal with these changing situations based on the latest evidence. To meet the current challenges, radiographers must embrace the potential offered for developing their clinical roles and where necessary change practice to align with local service needs that support patient -focused care. In order to do this the profession must have a coherent strategic direction and practical support needed to effect the necessary change. In particular, it believes that the profession must:

Promote and value equally advanced practitioner level, generalist and specialist role radiographers. Valuable, flexible and expert services are provided by generalist advance practice radiographers, offering breadth of practice coupled with high skill levels, depth of knowledge and wide experience. They work across and with the range of clinical teams essential to service delivery overall, particularly with regard to delivering extended day/week and 24/7 services. Specialist practice advanced practitioner roles complement generalist advanced practitioners, meeting specialist care needs and ensuring seamless care delivery.

Adopt cultural change. All radiographers, associated professionals and the support workforce must have access to clinical supervision, professional advice and CPD in an environment that nurtures and promotes their individual learning. Additionally, all individuals regardless of their role or position must continue to develop their knowledge and skills based on the evidence required to provide high quality care.

Exercise increased degrees of freedom and professional self-regulation. Patients have benefited, and will continue to benefit, from radiographers and support staff that have developed enhanced roles that impact positively on patient/client care. It is important that radiographers are clear about their professional responsibility and accountability and, in exercising greater freedom in their roles, do so in line with the profession's ethical code and the standards.

Promote effective leadership and management. Heads of Service must be professionally qualified and registered radiographers. They are best equipped to take the lead in reviewing services and implementing new roles to meet changing services needs. They shape policy and operate strategically to streamline service delivery aligned to care pathways and to make the most effective and efficient use of the skills and potential of the whole workforce.

Provide solutions. Radiographers can advance to a point where radiographers are employed in a sizeable number and range of strategic management and leadership roles. The role of the advanced practitioner in countries such as the United Kingdom and the Netherlands has demonstrated the willingness of the radiographers taken on these roles, the versatility of the workforce in adopting new technologies, adapting

practice and advancing their sphere of responsibility. Overall, the profession has demonstrated its ability to provide effective solutions to shortfalls in the provision of services. More major change in health care services is anticipated and the profession must remain ready to seize further opportunities to improve health care for patients and the public.

What the future could hold

Radiographic practice continues to evolve rapidly and the higher levels of responsibility and autonomy carried by the profession have been shown to be beneficial to patients/clients and to provide radiographers and support staff with increased job satisfaction. All members of the profession and the radiographic workforce have roles in the further evolution of the profession. However, top level members of the profession including service managers and leaders, educators, clinical consultants and researchers, carry particular responsibilities for this by strengthening and integrating the development of radiographers' potential, improving patient care and re-configuring and re-aligning services along care pathways and across health care sectors.

Developing radiographers' potential

The profession's potential may be further developed by:

- providing education appropriate to all levels of radiography practice
- using preceptorship to support newly qualified radiographers and, subsequently, adopting clinical supervision to provide the support framework for all staff
- undertaking CPD in a planned and cohesive manner
- formally incorporating reflection into daily radiographic practice
- engaging fully in wider multi-disciplinary team meetings and work
- developing enhanced knowledge management skills
- participating in approval and accreditation processes at all levels of practice and for all services.

Improving patient care

The improvement of patient care and patient experience is central to radiographic practice and requires the profession to:

- practise on the basis of evidence
- engage in audit and research to evaluate practice and to provide the required evidence
- adopt innovations where these provide clear improvement for patients and the public
- integrate quality assurance into daily practice and strive for quality enhancement
- ensure they practise within clear clinical governance frameworks
- develop excellent multi-professional and inter-professional working relationships
- integrate health informatics into daily practice
- value and support the roles of its clinical experts, high achievers and leaders.

Conclusion

This document provides guidance on releasing and maximising the potential of radiographers to deliver high quality, effective and efficient diagnostic imaging and radiotherapy and oncology services.

Appendix 1:

Definitions

***Practitioner**:* level of entry to professional practice. The practitioner will have developed an understanding of a complex body of knowledge. Analytical techniques and problem solving skills enable the practitioner to operate in a variety of settings including active involvement in research. The practitioner needs to be able to exercise personal responsibility and make decisions in complex and unpredictable circumstances. The learning process must enable the practitioner to be able to evaluate evidence, argument and assumptions, to reach sound judgements and adapt practice as required, and to communicate effectively.

Advanced Practitioner : An individual who has significantly developed their role and who consequently has additional clinical expertise in a defined area of practice, accompanied by deep underpinning, evidence based knowledge related to that expertise. They make appropriate clinical decisions related to their enhanced level of practice, directly impacting on the patient care pathway

Preceptor: Is a practitioner who carries out one-to-one teaching and support of new entrants into the profession, as well as their normal duties. Responsibilities include planning, teaching, role modelling and evaluation.

***Preceptorship**:* The period of time spent working with your preceptor when newly qualified.

Accreditation: A formal process used to determine the competencies necessary to demonstrate knowledge, skills and achievement at a relevant level as determines by their member Society. This can be achieved for example by the successful completion of an approved course or through submission of a portfolio of evidence.